



Chicago Flu Update



Rahm Emanuel, Mayor

February 17, 2017

Julie Morita, MD, Commissioner

News & Updates

Influenza activity continues to increase and **it's not too late to get a flu shot**; the proportion of specimens testing positive for influenza B is higher than previous seasons during the same time period. Vaccination is the best way to protect against influenza infection and all Chicagoans aged six months and older are encouraged to get vaccinated. Chicagoans should ask their healthcare provider or pharmacist about vaccine availability. For those without a healthcare provider or whose healthcare providers do not have the influenza vaccine, a list of [City of Chicago Fast-Track Immunization Clinics](#)¹ is available on the City website and by calling 311. To locate the closest City of Chicago clinic or retail pharmacy, go to www.chicagoflushots.org.

The Illinois Department of Public Health (IDPH) has issued [influenza testing and reporting recommendations](#)²; healthcare facilities can report cases to the Chicago Department of Public Health via [INEDSS](#)³.

What is the risk?

Currently, the risk of influenza infection continues to increase.

Are severe cases of influenza occurring?

For the week of February 5-11, 2017, 20 influenza-associated ICU hospitalizations were reported (Figure 1).

Since October 2, 2016, 77 influenza-associated ICU hospitalizations have been reported; 59 were positive for influenza A (33 H3N2 and 27 unknown subtype [subtyping not attempted or not all subtypes tested]) and 17 were positive for influenza B. The median age of reported cases is 65 years (range of 8 months - 96 years); selected attributes are summarized in Table 1.

Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2016-2017), October-May.

Age Group	#	%	Sex	#	%
0-4	6	8	Male	34	44
5-17	6	8	Female	43	56
18-24	1	1	Med. Cond./Complication*		
25-49	8	10	Lung Disease	28	36
50-64	17	22	Cardiac Disease	27	35
≥65	39	51	Ventilator Support	19	25
Race/Ethnicity			Reported Deaths	5	6
NH-White	24	31	Treatment/Vaccination*		
NH-Black	25	32	Reported Antiviral Tx	51	66
Hispanic	23	30	Reported Flu Shot	37	48
Asian	5	7			

* Among cases with reported information.

How much influenza-like illness is occurring?

CDPH receives data from influenza surveillance sites across Chicago, which report the total number of patient visits seen weekly, and of those visits, the number with influenza-like illness (ILI) (i.e., fever of 100°F or greater, with cough or sore throat). Several hospitals in Chicago that provide emergent care report on a weekly basis the total number of emergency department visits, and of those visits, the number with ILI. For the week of February 5-11, 2017, with 9 hospitals reporting, 5.7% of emergency department visits were due to ILI (Figure 2). **ESSENCE** is an electronic syndromic surveillance system that utilizes emergency department chief complaint data submitted daily by Chicago

Figure 1. Number of influenza-associated ICU hospitalizations reported for Chicago residents, for the current season (2016-2017) and previous season (2015-2016), October-May.

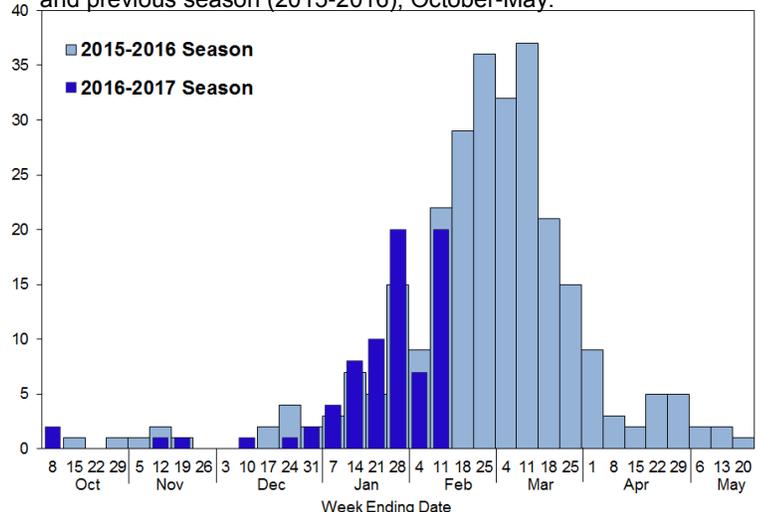
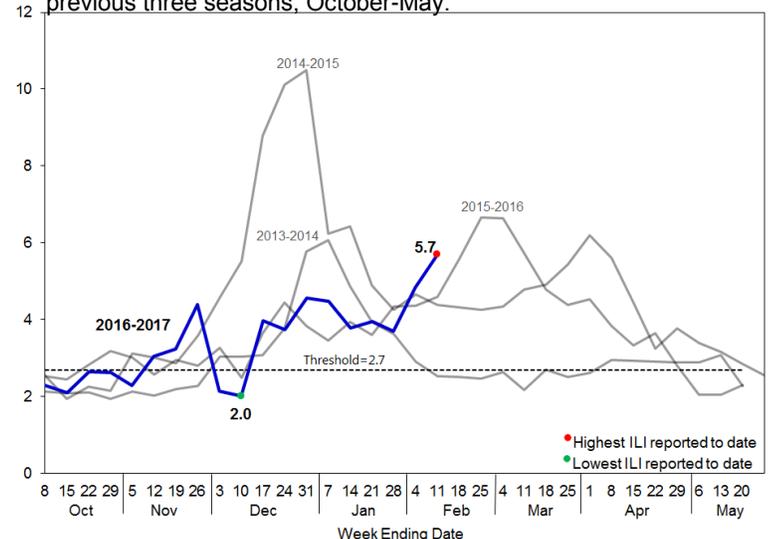


Figure 2. Percent of emergency department visits attributed to influenza-like illness based on manual reports by individual hospitals, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.



¹ https://www.cityofchicago.org/city/en/depts/cdph/supp_info/clinical_health/immunizations_walk-inclinics.html; ² <http://www.dph.illinois.gov/sites/default/files/publications/ohp-labs-influenzaannual-testing-and-reportingmemo-09222016.pdf>; ³ <https://dph.partner.illinois.gov/>

hospitals. ILI activity is determined solely based on the patient's chief complaint and does not take into account the entire medical record, as the ILI activity reported in Figure 2 does.

Currently, all Chicago hospitals submit data to ESSENCE, covering every emergency department visit in the city. For the week of January February 5-11, 2017, 3.1% of all emergency department visits were due to ILI; Southside hospitals had slightly higher ILI at 3.6%, Northside hospitals at 3.0% and Westside hospitals had the lowest at 2.7% (Figure 3).

Several outpatient clinics throughout Chicago participate in CDC's Influenza-like Illness Surveillance Network (ILINet) by reporting on the number of patients with ILI seen weekly. For the week of February 5-11, 2017, with 22 facilities reporting, 7.0% of outpatient visits were due to influenza-like illness (Figure 4).

Which influenza strains are circulating?

Data on influenza virus test results are reported by Chicago laboratories performing influenza RT-PCR. For the week of February 5-11, 2017, with 6 laboratories reporting, 143 of the 886 (16.1%) specimens tested for influenza were positive (85 A (H3N2), 1 A (H1N1pdm09), 14 A [unknown subtype], and 43 influenza B).

Since October 2, 2016, 629 of 11,373 (5.5%) specimens tested for influenza have been positive; 477 typed as influenza A (406 H3N2, 7 H1N1pdm09, and 64 unknown subtype [subtyping not attempted or not all subtypes tested]) and 152 typed as influenza B (Figure 5). The cumulative percent of specimens testing positive for influenza is lower than previous seasons during the same time period where influenza A (H3N2) was the predominant strain (Table 2).

Table 2. Cumulative percent of specimens testing positive for influenza by RT-PCR by type for the current season (2016-2017) and the previous four seasons, Chicago, Weeks 40-06.

Influenza Season	% Pos.	% A H3N2	% A H1N1pdm09	% A Not Sub-typed	% B
2012-2013*	15.5	76.1	6.3	13.7	4.0
2013-2014	9.1	1.9	69.1	26.5	2.5
2014-2015*	15.6	76.7	0	17.2	5.8
2015-2016	3.5	2.8	75.4	17.1	4.8
2016-2017*	5.5	64.5	1.1	10.2	24.2

* Influenza seasons where A (H3N2) was the predominant circulating strain

Where can I get more information?

The Centers for Disease Control and Prevention's FluView⁴ report provides national updates and trends related to the intensity of influenza activity across the United States, as well as detailed information on antiviral resistance, severity of illness, and other topics. Updates specific to Illinois⁵ and Suburban Cook County⁶ are also available online. Current and archived issues of the Chicago Flu Update can be found on the CDPH website section Current Flu Situation in Chicago⁷.

Figure 3. Percent of emergency department visits attributed to influenza-like illness by hospital region based on chief complaint data submitted to ESSENCE, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

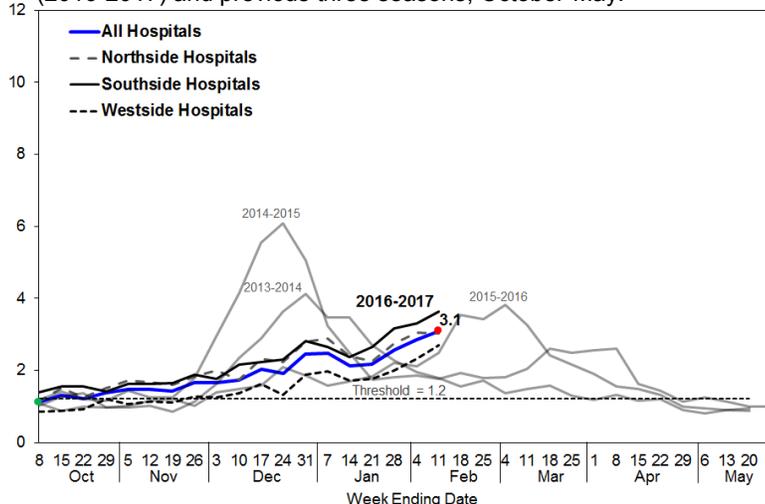


Figure 4. Percent of medically-attended outpatient visits attributed to influenza-like illness as reported by ILINet facilities, Chicago, by week, for the current season (2016-2017) and previous three seasons, October-May.

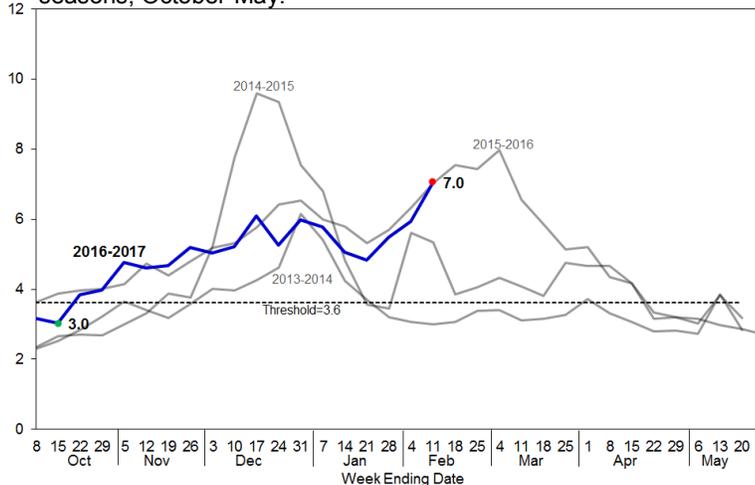
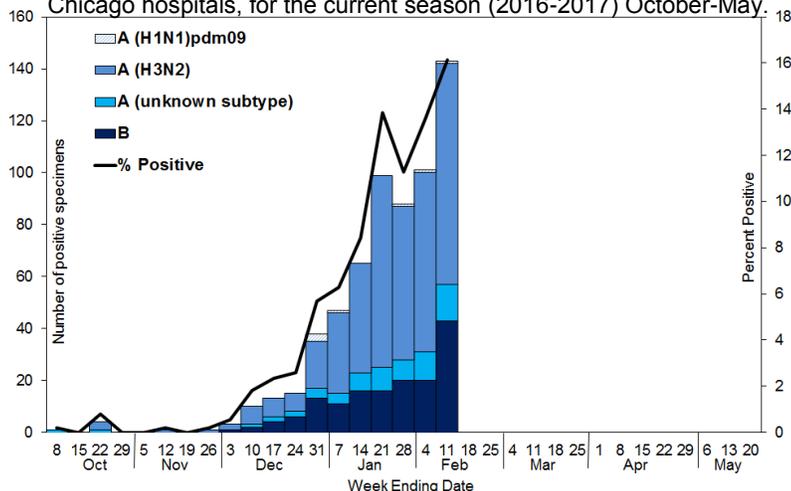


Figure 5. Percent of specimens testing positive (by RT-PCR) for influenza by subtype as reported by local laboratories serving Chicago hospitals, for the current season (2016-2017) October-May.



⁴<http://www.cdc.gov/flu/weekly/index.htm>; ⁵<http://dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance>; ⁶<http://cookcountypublichealth.org/data-reports/communicable-diseases>; ⁷http://www.cityofchicago.org/city/en/depts/cdp/supp_info/influenza/current_flu_situationinchicago2011.html